

Remarks

Claims 51-64, 71-84, 91-94 and 99 remain in the application. Claims 51, 91 and 99 have been amended to delete the word "about" preceding 2.3 lbs./100 sq. ft., and claim 91 has been further amended to change 2 to 2.3 as the lower range of the basis weight.

Applicants respectfully urge the Examiner to enter this amendment because:

- 1) The Examiner criticized the use of "about" preceding 2.3,
- 2) The minimum of the range of 2.3 to about 2.6 exists in claims 51 and 91, and
- 3) These are minor amendments that do not require further searching or significant consideration as to the meaning, and
- 4) These amendments place the claims in better condition for allowance or reduce issues for an appeal.

The claimed invention are fibrous nonwoven mats useful as the scored and folded vertical dividers, webs spanning between an exposed mat and a backer mat in a compressible ceiling tile as disclosed in published U. S. Patent Application No. 20020020142 filed April 23, 2001, including the ability to, after being scored, folded, and compressed, to spring back to the original shape and orientation. These mats meet severe requirements of a relatively new product. The novel features of the fibrous nonwoven mats are the combination of components, limitations of the components and limitations on the basis wt. and thickness of the fibrous nonwoven mats that produce a novel combination of properties, a combination of properties that permit the fibrous nonwoven mats to perform in a superior manner when scored and used as the collapsible webs in compressible ceiling tile. the type of compressible ceiling tile disclosed in U.S. Published Patent Application No. 20020020142. The fibrous nonwoven mats have a basis weight in the range of about 2.3 to about 2.6 lbs./100 sq. ft., a thickness in the range of about 38 mils to about 48 mils (claims 51-81 and 91-94) and and 35-48 mils (Claims 99 & 82-

84) and are comprised of a blend of fibers comprising at least about 88 wt. percent to about 92 wt. percent of glass fibers having diameters in the range of about 13 to about 17.5 microns and lengths in the range of about 0.7 to about 1.1 inches, and about 8 to about 12 wt. percent of polymer fibers selected from a group consisting of polyester, polypropylene, nylon, PBT, polyacrylonitrile and polybenzimidazole, often polyester fibers, the blend of fibers bound together with about 25 +/- 5 wt. percent and of a particular type of binder. The claimed mats have excellent flame resistance and excellent and unexpected tensile strength, flex and recovery properties after scoring and folding, the mat passing the National Fire Protection Association's (NFPA) Method #701 Flammability Test as well as critical tensile strength and a Taber Stiffness of at least about 50, properties essential for the mat to be used ceiling tile of the type described in U.S. Published Patent Application No. 20020020142. As pointed out in the Summary section of the specification, these properties are unique and unexpected in nonwoven mats containing a majority of glass fibers bound together with an organic binder. Also, as pointed out in the Jaffee Declaration, Jaffee being an expert in nonwoven mat technology, being the inventor or co-inventor of 11 US patents, see Exhibit A enclosed, and being aware of the contents of the references cited by the Examiner, made more than 100 different mats containing many different combinations of different fibers and different binders before a mat composition was tried that produced a mat that met the properties required for a mat to be used in the ceiling tile described above. Once that breakthrough was achieved, then ranges of variations, including those of the Examples set forth in the specification, were found that also met the requirements of the ceiling tile, and some combinations of variables produced mats having the better properties for this use than others although many could be used.

An example of a ceiling tile of the type described in U.S. Published Patent Application No. 20020020142, this ceiling tile sample having nonwoven mat dividers 52 spanning an outer sheet 54 and a backing mat 56, the mat dividers being scored and functioning to fold to allow the ceiling tile to be compressed or collapsed to save space for packaging and shipping. The presently claimed mats are suitable for the scored and folding dividers 52 in this type of ceiling tile. Also presented is a Declaration by the inventor, one having more than ordinary skill in the nonwoven mat art. As taught in U.S. Published Patent Application No. 20020020142, "The dividers [52], on the other hand, while preferably being made of fiberglass, could be made of a carbon fiber mat, some papers, cardboards, woven materials, films, or combinations thereof, with the important

feature being that they have some predetermined modulus of resiliency, similar to the specific materials identified above, which allows them to be folded but remain resilient. If the materials are to be creased to define fold lines as discussed above in connection with fiberglass material, it is important that the material retain the modulus of resiliency after having been creased, which, of course, is true with fiberglass or carbon fiber materials." and "As mentioned, numerous materials might have applicability in the present invention, but in the preferred mode, the connector sheet and the dividers are made of the same material, which is a fiberglass mat made by Johns-Manville Corporation and the mat may be one designated No. 5802 or one designated No. 5803 by Johns-Manville." The 5802 is a 120 g/m.sup.2 mat composed of 10% PET/65% 16-micron glass/25% MF. The 5803 is a 100 g/m mat composed of 12% PET/68% 16-micron glass/20% MF. MF is an abbreviation for melamine formaldehyde resin, which exhibits the characteristics of a thermoset resin. PET is an abbreviation for a polyethylene terephthalate. Dividers made from either of the 5802 or 5803 material have the ability to expand with little or no addition of heat after having been creased and folded as described previously and after having been fully compressed. A more complete description of the Johns-Manville products and related products can be found in U.S. Pat. Nos. 5,840,413, 5,942,288, and 5,972,434, which are herein incorporated by reference. " The ceiling tile of U.S. Published Patent Application No. 20020020142 is a commercial product as shown by Exhibit 1 enclosed.

The Examiner states that the Jaffe Declaration is insufficient to overcome the rejection because the Examiner urges tha the Declaration fails to clearly demonstrate that all embodiments of Jaffee '846 fail to pass the now claimed Flammability test or possess the claimed Tabor stiffness level. The Examiner is directed to paragraph No. 5 of the Jaffe Rule 1.132 Declaration where Jaffee, the inventor of Jaffee '846, clearly states that Example 3 and the other mats of the invention disclosed in U.S. Patent No. 5,772,846 are also unsuitable --- because of insufficient stiffness and toxicity of the smoke. This statement made under oath, is abundantly clear. Applicant believes that it is reversible error to ignore the clear statements of the inventor of the patent being used in a rejection by the Examiner.

Claims 82-84, 91-94 and 99 stand rejected under 35 USC 112, second paragraph, as being indefinite because of the term "comprising a blend of fibers suitable for use ----- as described in U.S. Patent Application No. 20020020142 filed April 23,

2001," the Examiner stating that claims may not incorporate, or incorporate by reference, another publication. Claim 51 has been amended to remove the term objected to and the Examiner withdrew this rejection from claim 51. This rejection is traversed because applicants urge that Claims 82, 91 and 99 are even more definite than claim 51 because the description of the compressible ceiling tile in claims 82, 91 and 99 is more definite than the terms used in 51 to describe the compressible ceiling tile.

The Examiner did not cite any authority for the statement that it is improper to incorporate by reference another publication into a claim, but if the Examiner could find such authority, applicants believe it would be in error for these reasons:

1) The second paragraph of 35 USC 112 states, "The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention." While the term "compressible ceiling tile" used in claim 51 could be generic and might include more than one kind of ceiling tile whereas the compressible ceiling tile described in a specific patent or published patent application is more distinct and more particularly points out what is meant than using a generic name. Even if applicants had used "ceiling tile", definitely a generic term that includes several different types of ceiling tile, the Examiner most likely would not have rejected the claim as being indefinite. There has to be something wrong with rejecting something that much more particularly points out and more distinctly claims something than if it is described by a generic term, don't you agree.

2) Apparently if the description of the compressible ceiling tile in published patent application No. 200220020020142 filed April 23, 2001, had been added to claims 82, 91 and 99 by amendment, these claims would not have rejected under 35 USC 112, second paragraph. That a patent or published patent application is or should be a full, clear, concise and exact description of something goes without question because that is required by 35 USC 112, first paragraph, and the Examiner did not reject these claims based on a belief that the published patent application at issue did not describe compressible ceiling tile in the manner required by 35 USC 112. Note the use of the term "concise" in 35 USC 112. This is evidence that the legislators who drafted and voted for this statute intended that no unnecessary verbeage should be in the patent application, including the claims. A patent and published US patent applications are permanent documents and are readily accessible to both patent examiners and those of

ordinary skill in the art. Therefore, it makes perfect sense, and complies with the wording and wishes of the legislature who established 35 USC 112 as law, to incorporate long descriptions of things into the specification, including the claims, so long as what is incorporated meets the requirements of 35 USC 112.

3) The matter incorporated into the claim is not essential, but does add to the definiteness of the claim because the final test of whether something works in a particular application, such as a compressible ceiling tile of the type described in the published patent application at issue, is to try it and see if it works. There are a limited number of known tests and resultant properties that can be used to try to define the requirements, but they don't always guarantee that the product will work in that application, but if the products, in this case fibrous mats, do actually work in that application, product(s), that can be a further distinctness that is only defined by the fact that they perform satisfactorily. Therefore, such a statement in a claim that the claimed article is suitable for a specific application is not merely a statement of use, but instead incorporates characteristics of the article that might not be described otherwise. Such is not indefinite because any article in question can simply be tried in the application and if it does perform satisfactorily, as is the case here, it falls within the claim if it meets the other limitations of the claim. But, if the article in question does not perform satisfactorily, as is the case with the mats disclosed in Jaffee '846, it does not fall within the claim.

4) The Examiner cited 37 CFR 1.57(f), but this rule is not applicable/appropriate in this situation.

For the above reasons, and because the Examiner has not provided any specific reasons why the incorporation of an article description by reference to a specific patent or published patent application, applicants believe that claims 82-84, 91-94 and 99 fully meet the requirements of 35 USC 112, second paragraph and respectfully request the Examiner to withdraw this rejection and to allow all of the claims.

Claims 51-64, 71-84, 91-94 and 99 stand rejected under 35 USC 103 as being unpatentable over Jaffee '846 in view of Arkens et al '213 and further evidenced by Chenoweth et al as set forth in the Office Action of 9/14/2007, i.e. because the references involve fibrous mats and further because of the motivation of achieving a heat resistant mat containing no formaldehyde. This rejection is traversed for the following

reasons:

1) The Examiner urges that Jaffee teaches a nonwoven mat comprising a major portion of glass fibers and a minor portion of polymer fibers bound together with up to 35 wt. percent of a crosslinkable binder and having a basis wt. in the range of 1.8 to about 2.2 lbs/100 sq. ft. The Examiner urges that Jaffee teaches the claimed mats except for the type of binder, but this is not correct for the following reasons:

a) The claimed mats meet a need having severe requirements for a nonwoven mat and do this with particular combination of ingredients and mat limitations that produce the properties claimed and necessary to this application. Jaffee does not teach the claimed mats except for the type of binder used. This statement is based on a mistaken and improper interpretation of the teachings of Jaffee. Interpreting Jaffee in this manner constitutes an improper hindsight rejection using applicants' own disclosure as a road map or template to piece together a rejection basis that would not have been obvious to one of ordinary skill in the art at the time the claimed invention was made, see *American Medical Systems, Inc. v. Medical Engineering Corp.*, 26 USPQ 2d 1081, 1091, 1992, or as an instruction manual or template to piece together teachings of prior art to render the claims obvious, see *In re Fritch*, 23 USPQ 2d 1780, 1783, 1992.

b) The Examiner urges that Example 1 of Jaffee teaches a mat thickness of 36 mils, but this mat contains only glass fibers and 19-20 wt. percent of a plasticized UF binder. Note that the mats taught by Jaffee as containing 15 % polymer fibers in place of an equal amount of glass fibers (e.g. Example 2) has a thickness of only 31 mils.

c) Note that the stiffness of the mats of Jaffee (Table) are all well below 50, the minimum of the presently claimed mats. The teachings of Jaffee clearly lead one away from the claimed invention because Jaffee teaches that prior art mats were too stiff, see col. 5, lines 64-67, i.e. a mat having a lower stiffness number, see the Table and lines 46-47, all of which are lower stiffness numbers than the claimed mats. Jaffee leads the skilled artisan towards a more flexible mat and away from the claimed invention. While the inventors here clearly teach that the Taber stiffness must be at least about 50 to satisfy the needed performance in the compressible ceiling tile, the Examiner, without any apparent evidentiary or logical basis urges that a stiffness of 45 would be satisfactory.

d) The Examiner urges that the mat basis weight taught by Jaffee of about 1.8 to about 2.2 lbs/100 sq. ft. is meets the minimum claimed here of 2.3 lbs./100 sq. ft. Applicant disagrees that the term about 1.8 to about 2.2 in Jaffee is the same as about 2.3 to 2.6 or that this reasonably suggests a basis wt. of 2.3 lbs/100 sq. ft. to one of ordinary skill in the art, particularly because Jaffee preference is 2.1 lbs./100 sq. ft., and Jaffee offers no reasonable suggestion that a mat having a basis wt. of 2.3-2.6 lbs./100 sq. ft. would have the properties of the claimed mats, or would be suitable in the compressible ceiling tile at issue here.

e) The folding of the mat described in Example 3 and pleating of the mat in Example 4 of Jaffee is quite different than the scoring and folding that the present mat must endure. In applying a facing to a gypsum wall board, the mat is simply folded around the edge of the board once and secured to the board, and in the pleating of the mat, the mat is first heated to soften the binder and fibers (hot pressed or heated and pleated, see col. 6, lines 60-64). In the case of the compressible ceiling tile, the mat is scored, which damages some fibers, to insure that the mat will fold in the exact desired location in all of the connecting webs of the ceiling tile and then the scored and folded mat is folded and compressed and stored and shipped under compression for an extended period of time. When the compressed ceiling tile is removed from the container, the scored and folded mat then must spring back into a straight mat to give the ceiling tile its desired shape. This application is nothing like the applications taught by Jaffee. This is important because it provides the significance for the properties of the claimed mats.

f) Jaffee deals with a very different problem, how to make a fibrous mat that would perform better as a facer on gypsum wall board than the prior art mats described in his Examples 1 and 2, particularly having improved flexibility, see col. 2, line 6. Jaffee teaches a mat that does perform better than the prior art mats because of having more flexibility, lower stiffness (90 degree bend stiffness) because of having a thermoplastic cross linkable vinyl chloride acrylate copolymer binder, see col. 1, line 62 through col. 2, line 37 and Example 4. Mats of this type could be thermoformed, i.e. heated to a plastic state and then formed (hot pressed) into a desired shape, such as pleats, that would be locked in that shape when the thermoplastic binder cooled and hardened. Nothing in Jaffee reasonably suggests such a combination of materials, or that when the claimed combination is present in a nonwoven fibrous mat would possess the characteristics or properties most suitable for the compressible ceiling tile application, the problem solved

by the claimed invention. The combination of glass fibers, polymer fibers and binder taught by Jaffee only becomes what the Examiner urges in hindsight given the teachings of applicants' own disclosure.

2) The Examiner acknowledges that Jaffee does not teach using the type of binder in the claimed mats, but urges that Arkens et al teaches such a binder and urges that it would have been obvious in the sense of 35 USC 103 to have used the binder of Arkens et al in the mats of Jaffee, because Arkens et al teaches that their binder can be used in glass fiber nonwoven mats, to make the claimed nonwoven mats. This rejection is traversed for the following reasons:

a) There are dozens of different binders available and known to be useful in glass fiber nonwoven mats and nothing in Arkens et al provides motivation for modifying Jaffee by using the Arkens et al binder because the binder taught in Example 3 of Jaffee produced a self extinguishing mat, see the Table, and it was also less costly, see col. 6, lines 25-27. The mat in Example 1, the only mat containing a formaldehyde binder, does not contain polymer fibers and therefore using the Arkens et al binder in the mat of Example 1 would not produce the claimed mats. Nothing in Arkens et al reasonably suggest that their binder would produce the properties in the mat required for the connecting, foldable webs of the compressible ceiling tile at issue.

b) Nothing in Arkens et al teach or reasonably suggest the combination of mat parameters or properties critical to the performance of nonwoven mat as connecting webs in a compressible ceiling tile. Therefore any reasonable combination of the teachings of Jaffee and Arkens et al fail to direct or lead one of ordinary skill in the art to the claimed invention.

c) The Examiner urges that Jaffee teaches in col. 1, lines 38-53 (also see Example 2, col. 5, lines 49-50 and 65) that it is known that acrylic resins provide nonwoven mats with increased stiffness, however Arkens et al do not teach acrylic resins! Arkens et al do not teach using acrylic resin binders, but instead teach using binders described in col. 2, lines 58-62.

3) Chenoweth is apparently relied on for teaching a range of polymer fibers in

combination with rotary spun, not chopped, glass fibers. Chenoweth teaches compressible blankets, col. 2, lines 45-50 and col. 3, lines 61-64, of finer glass fibers (3-10 microns in diameter) and completely different types of products that the presently claimed mats, see the Jaffee Declaration, paragraph #4d (i-iii). Chenoweth also teaches away from the claimed mats, teaching that an optimum proportion of glass fibers is 62 percent and an optimum proportion of polymer fibers is 21 percent and the optimum percent of binder is 16.5 percent.

Also, the type of glass fibers taught by Chenoweth are completely different types of fibers than the fibers of the claimed mats, have fiber diameters much lower than the mats of the claimed invention, and that have various indeterminate lengths of less than 1/2 inch to approx. 3 inches. The chopped fibers in applicants' claimed mats have a narrow length distribution because of having been chopped in definite lengths from strands containing hundreds or thousands of continuous fibers whereas the rotary spun fibers of Chenoweth were shredded, see col. 3, line 68. Chenoweth cannot reasonably suggest the compositions of the current claims, because he is dealing with different types of fibers and different types of products aimed at different applications, automotive hood liners and similar products, see col. 5, lines 25-32. By looking at any automobile hood liner one can readily see that the products are completely different than the claimed mats and the mat of Exhibit 1. Chenoweth does not teach or reasonably suggest that his product would be suitable for use in a ceiling tile of the type described earlier, nor would one skilled in the art so conclude.

4) The Examiner urges that applicants' ranges for the concentration of polyester fibers are broad and encompass typical values found in the prior art as evidenced by Chenoweth. With due respect, this allegation is wrong! The claimed mat contains about 8-12 wt. percent (8-16 wt. percent in claim 91) of man-made polymer fibers and this range is not broad. Chenoweth urges in Table 1 that a range of 30-50 wt. percent of synthetic fibers are functional, that a range of 10-30 wt. percent are preferred, and that 21 wt. percent is optimal, and this is in combination, not with 13-17.5 micron fibers about 0.7 to about 1.1 inch long like in the claimed mats, but instead with rotary spun glass fibers having diameters of 3-10 microns (col. 2, lines 21-22) and lengths of less than 1/2 inch to approx. 3 inches (col. 3, lines 67-68. Finally, just any combination of glass fibers and polymer fibers bonded with any type of binder will produce the properties and characteristics necessary to perform well in the scored and folded webs of the ceiling tile

described above, as confirmed by the Jaffee Declaration, i.e. Jaffee would not have tried more than 100 combinations before discovering the present invention.

5) Further, because of the many differences in the mat constructions, suggested applications and properties of the mats or blankets taught by Jaffee, Arkens et al and Chenoweth from the claimed invention, and the reasons given above regarding the lack of motivation for each difference, the present rejection seems to be a improper hindsight reconstruction using applicants' own disclosure as a template to assemble irrelevant and/or unrelated pieces of prior art to try to establish a case for obviousness, see American Medical Systems, Inc. v Medical Engineering Corp., 26 USPQ 2d, 1081, 1091, (District Court of E.D. Wisconsin, 1992) for the principal that one may not use the applicants' disclosure as a "road map" for finding and combining prior art using only hindsight after having the benefit of applicants disclosure. Several discrepancies or deficiencies in the prior art teachings relative, such as the obviously lower stiffness and higher flexibility of the mats of Jaffee, the different suggested applications, the teaching away by preferred or optimal combinations taught in Jaffee and Arkens et al and the difference in the glass fibers taught by Chenoweth and Arkens et al are evidence that the present rejections are improper hindsight rejections. Certainly, nothing in Jaffee, or in Arkens et al, teach that a fibrous nonwoven mat for use as a collapsible web, divider in a compressible ceiling tile of the type described above should have a Taber stiffness of the magnitude of the claimed mats. Note that although Arkens et al teach many applications for their mats at col. 8, lines 61-67, use as a facer mat for gypsum wall board or for use in compressible ceiling tile are not taught or reasonably suggested. Further, Arkens et al do not disclose the stiffness properties of their mats nor do they reasonably suggest that their mats have the stiffness properties that would be suitable for compressible ceiling tile.

For the above reasons, applicants believe that the Examiner has failed to establish a prima facie case of obviousness as required under 35 USC 103 and respectfully requests the Examiner to withdraw this rejection and to allow all of the claims.

Other reasons for patentability under 35 USC 103 are as follows:

6) Further, as explained below, the most reasonable place to look for teachings to solve

the problem solved by the claimed invention would be in the publications for compressible ceiling tile and in any patents covering the mats previously used for the collapsible dividers in those compressible ceiling tiles. When one does that, as explained in reason #9 below, and further pointed out in the Jaffee Rule 1.132 Declaration filed earlier, one of ordinary skill in the art is not directed to the mats claimed here.

7) Two Rule 1.132 Declarations have been filed in this application by one of the joint inventors, Alan Jaffee, an expert in nonwoven mat technology. A First Declaration was filed with an RCE Amendment September, 2006 and a Second Declaration was filed November 19, 2007. The First Declaration has stated in paragraph No. 4 (a) that, even with his training and experience, i.e. the inventor of Jaffee and an expert in the glass fiber nonwoven mat art, it took him more than 100 different trials and more than 54 days to find a combination of materials and mat characteristics to find a mat and a suitable range of mat parameters that performed successfully as a collapsible web divider in the ceiling tile described in the published patent application cited just above. These facts are strong evidence that establish a prima facie case of non-obviousness, i.e. that the claimed mats would not have been "obvious to one of ordinary skill in the art at the time the invention was made". What evidence has the Examiner presented that proves otherwise? The Examiner merely urges, without any evidence or basis, that this large amount of work and time "does not contribute to a prima facie case of non-obviousness". Applicants believe that such a large amount of work and time would not be required by an expert in the art, and particularly by the inventor of Jaffee to make something obvious to one of ordinary skill in the art, and that this conclusion by the Examiner is reversible error.

8) The Examiner continues to urge that it is reasonable to assume that the Taber stiffness of the claimed mats, at least 50, and the ability to pass the National Fire Protection Association's (NFPA) Method #701 Flammability Test would be inherent in the Jaffee mats. Jaffee '846 mats. Jaffee's testimony in the Second Rule 1.132 Declaration proves otherwise, and also proof is present in the Jaffee '846 patent that the Jaffee mats have a lower Taber stiffness than the claimed mats, see the Table in the Jaffee patent. The Examiner's allegation that a Taber Stiffness of 45 is within what one of ordinary skill in the art would think "at least about 50" in the claimed mats is not only totally without any basis, but is also unreasonable, and applicants believe it is also reversible error, especially in view of the fact that the second Jaffee Declaration that the Example 2 mat of the Jaffee '846 patent had insufficient stiffness. Arkens et al is not concerned with mat

stiffness and neither mentions stiffness or provides any stiffness data, but there is no reasonable basis for assuming that the stiffness of the mats taught by Arkens et al have a stiffness of at least 50 gram centimeters, particularly because the only basis weight disclosed or reasonably taught is only 1.75 lbs/100 sq. ft. and the mat contains only a binder and 1.25 inch long (or 0.75 inch long – Ex. 18), 16 micron diameter, E glass fibers, see Example 3, col. 10, line 4. Further, Arkens et al do not state or reasonable suggest that their mats pass the National Fire Protection Association's (NFPA) Method #701 Flammability Test, or that they are even flame resistant. Arkens et al were concerned that the mats had good heat resistance, i.e. would hold together and have sufficient tensile strength when impregnated with hot asphalt at 150-250 degrees C. This is not hot enough to burn. Arkens et al were not concerned with flame resistance because filled with asphalt, a very flammable material, the mats would not have good flame resistance.

9) The Examiner states that “absent a clear indication in the specification or claims of what the basic and novel characteristics actually are, “consisting essentially of” will be construed as equivalent to comprising.” This appears to contrary to the long since established practice of interpreting the scope of the term “consisting essentially of”. Unlike the case of PPG, applicants have very clearly set out the novel characteristics of the nonwoven mats of the invention in the claims and above. Therefore, the term “consisting essentially of” in the claims defining the type of binder used was inserted to avoid an assertion that the claimed mat did not contain the polyvinyl alcohol binder present in the Geel mats. The term “consisting essentially of” is entitled to the meaning that has traditionally been given to this term by the USPTO and the courts.

10) Applicants believe that failing to give weight to properties recited in article claims is reversible error, particularly when evidence to the contrary has been presented. It is improper to ignore property limitations in the claims when the composition of the item having the properties is different than reasonably taught by the reference and especially when the applicant is claiming the properties are critical to a particular different application and/or are unexpected. It is also improper to merely presume that all mats falling within very broad ranges of components, different components at that, have properties that are neither remotely suggested by the reference or any reference cited or are the same as claimed. The presumptions, to be correct, must be reasonable and must be reasonably supported by evidence. Only when the compositions are exactly the

same, or so nearly the same, would one of ordinary skill be able to reasonably assume that the properties are the same, or very nearly the same. The Examiner has not shown this or even that most all of the structural and chemical properties of the nonwoven mats claimed, nor is there any evidence to support the allegation that any mat in the ranges taught by Jaffee or Arkens et al will inherently have the properties of the claimed mats. This argument applies to the flex properties following scoring and folding, the flammability test results, the Tabor Stiffness properties and the ratio of wet tensile to dry tensile strengths. The Examiner urges that it is the burden of applicants to prove otherwise, but such is impossible because the Examiner has not set out specifically what part(s) of the Jaffee teachings the Examiner believes was obvious to modify and by specifically what part(s) of Arkens et als' teachings to arrive at specifically what fiber blend composition, mat composition, fiber type and properties, mat basis weight, and mat thickness that the Examiner believes was obvious. Without such information it is impossible to determine the properties of an elusive or phantom mat and unreasonable to require the applicants do so.

11) Applicants have provided evidence in the two Jaffee Declarations, paragraph #4 d (i, ii, iii), that the properties of the claimed mats, such as Taber Stiffness, was not inherent in prior art mats, and the Examiner has not provided any evidence to support the allegation of inherency, see *In re Dembiczak*, 175 F. 3d 994, 50 USPQ 2d 1614 (Fed. Circuit 1999), for principle that the Examiner must have actual evidence from the prior art to support alleged suggestions to modify references, and *In re Soni*, 34 USPQ 2d 1634. (Fed. Circuit, 1995), *In re Jones*, 21 USPQ2d 1941 (Fed. Circuit, 1992) and *In re Gordon*, 221 USPQ 1127, 1783, for the principles that a showing of substantially improved results for the invention, and statements that the results were unexpected should suffice to establish unexpected results absent evidence to the contrary and that there must be a suggestion in the references of the desirability of combining the teachings of the references. Also see 182 USPQ 291, (CCPA, 1974) for principle that a prior art teaching of a broad range does not make obvious a narrower range if the narrow range produces much better results or properties than taught by the reference for the broad range. Once the applicants have provided evidence showing that the inherency alleged by the Examiner is wrong, the burden then shifts to the Examiner to show that inherency does in fact exist.

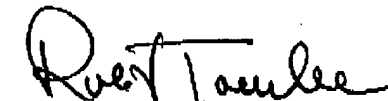
12) Finally, the mats of the invention were designed for dividers in compressible ceiling

tiles of the type disclosed in US. Pat. App. No. 2002020142 as pointed out in the specification. In that patent application, the mats that were said to perform as the dividers, i.e. the mats that have to be scored and folded and then have the properties that will cause the ceiling tile to spring back into the proper thickness after having been compressed for storing and shipping and storing awaiting use, were mats disclosed in three patents owned by the assignee of the present invention, particularly US 5,840,413 and 5,942,288. The mats taught in those patents contained expensive glass microfibers, i.e. having diameters below 5 microns, and bound with a melamine formaldehyde binder. Glass microfibers cost at least double per pound compared to the 13 – 17.5 micron fibers used in the claimed mats. The mats of the present invention do not require the presence of fine glass fibers to meet the requirements for the dividers in the ceiling tile and that is a further unexpected result of the combinations claimed. The Examiner urges that since the claimed invention are mats and not ceiling tiles, that the properties required in the mats to be used in the ceiling tiles is irrelevant. The present claims now clearly state that the claimed mats are useful as the scored and folded vertical webs spanning between an exposed mat and a backer mat in a compressible ceiling tile (some claims specifically describing as disclosed in published U. S. Patent Application No. 20020020142 filed April 23, 2001), including the ability to, after being scored, folded, and compressed, to spring back to the original shape and orientation and thus have the characteristics required for that application, something that none of Jaffee, Arkens et al or Chenoweth disclose or reasonably suggest to one of ordinary skill in the art. Applicants have shown how difficult it was to invent mats having the properties necessary for this new type of ceiling tile and those properties were not known in prior art mats. This new type of ceiling tile could not be as cost competitive and be as commercially desirable until the mats of the claimed invention were invented. Applicants have presented evidence to support the importance of these mat properties and the Examiner has provided no evidentiary basis for urging that these properties are inherent in the mats of Jaffee. The claimed mats advance the art of nonwoven mats in an unobvious way and as such meet the requirements of 35 USC 103. The Examiner seems to be ignoring this evidence of non-obviousness and if so, is improper.

For the above reasons applicant believes that the present claims are patentable under 35 USC 103 and respectfully requests the Examiner to withdraw this rejection and to allow all of the claims. Applicants believe that the claims are now in condition for allowance, but if the Examiner believes one or more issues still exist, to expedite disposal

of this application the Examiner is respectfully invited to call Applicants' attorney at the number listed below to discuss the issue or issues and a way of removing.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Robert D. Touslee", written over a horizontal line.

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